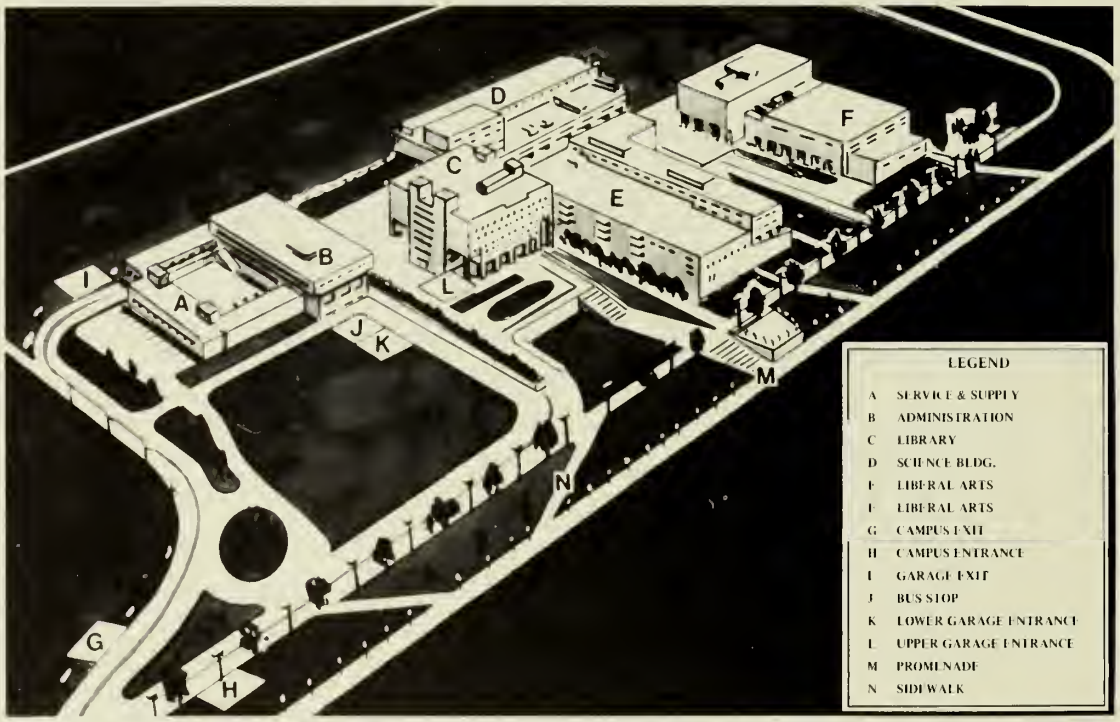
University of Massachusetts at Boston

Graduate Bulletin

1976—77

The University of Massachusetts symbol is a six-pointed motif made up of three units representing learning (an open book), unity (juxtaposition of the units representing campuses at Amherst, Boston, and Worcester), and mankind (conventionally represented by the Y space formed between the three units).



TO GET TO UMASS-BOSTON: From North or West. Take the Southeast Expressway and leave at Exit 17; turn left onto Columbia Road; turn right at rotary circle to Morrissey Boulevard; turn left into campus at first set of traffic lights.
From South: Take Southeast Expressway and leave at Exit 18; follow signs on Morrissey Boulevard to the campus.
By Public Transportation: Take Red Line on MBTA to Columbia Station. University shuttle service picks up passengers at the Parking Lot.

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ACADEMIC CALENDAR 1976-77

FIRST SEMESTER

September 1	Wednesday	Special Add/Drop Day
September 2	Thursday	First Day of Classes
September 6	Monday	Holiday (Labor Day)
September 10	Friday	Add/Drop Ends
October 11	Monday	Holiday (Columbus Day)
October 20	Wednesday	Mid Semester
October 29	Friday	Pass/Fail Deadline Course Withdrawal Deadline
November 11	Thursday	Holiday (Veteran's Day)
November 22 - Dec. 3	Monday - Friday	Advance Registration
November 25-28	Thursday - Sunday	Thanksgiving Recess
November 29	Monday	Classes Resume
December 8	Wednesday	Classes End
December 9-14	Thursday - Tuesday	Reading Period
December 15-22	Wednesday - Wednesday	Final Exam Period
December 23	Thursday	Emergency Make-up (in case of snow cancellations)

SECOND SEMESTER

January 21	Friday	Special Add/Drop Day
January 24	Monday	Classes Begin
January 28	Friday	Add/Drop Ends
February 21	Monday	Holiday
February 22	Tuesday	Monday Schedule
March 11	Friday	Mid Semester
March 17	Thursday	Holiday
March 18	Friday	Pass/Fail Deadline Course Withdrawal Deadline
March 26 - April 3	Saturday - Sunday	Vacation
April 4	Monday	Classes Resume
April 18	Monday	Holiday (Patriots Day)
April 19-29	Tuesday - Friday	Advance Registration
May 6	Friday	Last Day of Classes
May 9-13	Monday - Friday	Reading Period
May 16-23	Monday - Monday	Final Exams
June 2	Thursday	Commencement

MESSAGE FROM THE CHANCELLOR

It is my unshakable belief that knowledge is strength, that knowledge is freedom, and that knowledge is to be found, preserved, and disseminated. This quest for knowledge is challenging, vitally important for society, and at all times difficult. But it is a rewarding and unending search, gratifying to both scholar and student as the problems, frustrations, and achievements of humankind are shared through our intelligence and understanding.

The opportunity for these experiences at the University of Massachusetts at Boston began in September, 1965, when the first cadre of students entered our laboratories, library and lecture halls in downtown Boston. As we begin our second decade, the opportunity to serve as an urban university glows brighter than ever before.

The urban university, in its real essence, is new on the American scene and must be dealt with out of new experiences and orientations. An urban university is not just a university in an urban setting, but rather is one responsive to the needs of the urban setting in which it is, and we need to do things we have not done before, to try paths that so far have been untried. This does not mean that we disregard or discard all that the slow, difficult process of many centuries has taught us. On the contrary, it is exactly here that I see the new challenge of urban higher education: how to relate the accumulated patrimony of human knowledge to the new sets of circumstances that face us in our culture, a culture which has become predominantly urban and pluralistic.

As we move forward in the exploration for knowledge, we will be better equipped by being more informed and more creatively involved in the immediate and remote world in which we live. In this process of search and decision, we are participants in a great adventure at the University of Massachusetts at Boston.

Carlo L. Golino

GENERAL INFORMATION

LOCATION

The University is located at its exciting and new campus by the sea in Dorchester, Massachusetts. The campus is a complex of six buildings: the academic buildings, the central library, the science center, administration and service buildings. The new campus of 100 acres is bordered by Dorchester Bay and is some three miles from downtown Boston.

The University is accessible by public transportation on the MBTA Red Line. There is a free shuttle bus service from the Columbia MBTA station.

The University of Massachusetts at Boston is part of the statewide university system which includes the university campus at Amherst and the Medical School in Worcester. Each unit of the system abides by the policy that acceptance of students is based without regard to race, color, creed, sex, age, national origin, or handicapped status, in accordance with Title II of the Education Amendments of 1972 and the Rehabilitation Act of 1973, and other Federal Laws.

LIBRARY

The University Library holds a book collection numbering approximately 250,000 volumes, and currently receives more than 2500 domestic and foreign journals and newspapers. It also has a growing collection of government documents, and a fine art and music library with listening carrels. A Science Library is located on two floors within the Science Building and contains the collections in Biology, Chemistry, Mathematics, and Physics. The Public Catalog of the Central Library holds a record for every book in all the University libraries.

AUDIO VISUAL CENTER

University of Massachusetts at Boston Media Services provide a full range of audio-visual equipment and consultation for instructional and other University related purposes. The Media Labs are designed to provide a "hands-on" access to display and mini-production audio, video and mixed-media equipment on a University-wide scheduled basis.

The University of Massachusetts at Boston Media Center, located in the University Library, is a sophisticated media production facility. The center is equipped with a color T.V. studio with computer editing capability; a multi-track audio studio; and associated graphic production space.

BOOKSTORE

Located in the Administration Building, the Bookstore carries all textbooks required for courses plus a complete line of art and school supplies, and gift items. Special orders can be made for almost any other book in print.

ADMISSION

All graduates of approved colleges, universities, or institutions who hold the B.A. or B.S. or other bachelor's degrees are eligible to apply for admission to the Graduate Program. Admission is only for the semester requested and cannot be guaranteed for a later date. Application forms can be obtained by writing to the Director of the Graduate Program, University of Massachusetts at Boston, Harbor Campus, Boston, Mass. 02125. Application for admission, with supporting documents, should be sent in duplicate to the Director of the Graduate Program. The application and the accompanying documents should be received by April 15, for September enrollment, and November 15 for the January enrollment. Applications received after these dates can be considered on a space available basis.

Admission to the Graduate Program does not necessarily indicate candidacy for an advanced degree. Such candidacy is subject to specific requirements as defined by the individual departments. The student must secure the approval of the Chairperson of the Department in which he desires to major before he can become a candidate for a degree in that subject.

Applicants can be admitted to the Graduate program in one of the two following categories:

Degree Status: a student admitted as fully qualified to undertake a program toward a graduate degree.

Post Graduate Status: Any student with a bachelor's degree who is not admitted on a full time basis or who is not, at the time of admission, seeking a graduate degree. This category can include any student accepted into the graduate program who is not in the degree status category.

REQUIREMENTS FOR ADMISSION

1. A minimum cumulative grade point average of 2.75.
2. A bachelor's degree or the equivalent from any college or university of recognized standing.
3. Two official transcripts of all previous college work (graduate and undergraduate).

   An applicant should request the registrar of all colleges previously attended to send two copies of the transcript directly to the Director of the Graduate Program in which the student will be majoring. A final transcript showing that the bachelor's degree has been awarded must be received before the applicant enters the Graduate program.
4. Two letters of recommendations from persons in the field of the applicant's academic major at the institution most recently attended. Applicants whose academic record goes back five years may substitute other references, subject to departmental acceptance.

5. The Graduate Record Examination (both Aptitude and Advanced Tests) are not required but the scores should be submitted if available. Biology and Chemistry Departments recommend that the G.R.E. exam be taken.

   Addresses of the Graduate Record Exam test center are available from the Educational Testing Service, 20 Nassau St., Princeton, New Jersey 08540.

6. For Foreign student requirements see section entitled Foreign Applicants.

7. The applicant must be accepted by both the department(s) and the Director of Graduate Studies.

FOREIGN APPLICANTS

The test of English as a Foreign Lauguage (TOEFL) is required of all applicants for admission to the Graduate Program from countries whose native langauge is not English. Information about the examination may be obtained by writing:

Test of English as a Foreign Language
Educational Testing Service
Princeton, New Jersey 08540

TOEFL may be waived if the applicant has attended an American college or university for a period of at least two academic years. A score of 550 or above is required. Students scoring between 500 and 549 who otherwise meet the requirements set by departments may be admitted with special permission from the department in which they will be majoring.

READMISSION

A student or applicant who falls into one of these categories must reapply:

1. An applicant who has previously been admitted to the University but did not enroll on the entrance date stated in the acceptance letter;
2. A graduate student at this University who was accepted for one degree program and wishes to apply for another program or degree; and
3. A degree candidate who has not enrolled in courses or paid the Program Fee must reapply and pay all associated fees.

TUITION AND FEES

TUITION

All graduate students, except those holding Teaching Assistantships or Fellowships, must pay tuition at the following rates:

Residents of Massachusetts-$23.60/credit hour up to $236 per semester for Fall Term 1976; $25.80/credit hour up to $258 per semester for Spring Term 1977.

Non-Residents-$48.20/credit hour up to $482 per semester for Fall Term 1976; $54.70/credit hour up to $547 per semester for Spring Term 1977.

In order to register as a Massachusetts resident, a student must have on file a Certificate of Residence properly authenticated by his/her Town or City Clerk.

STUDENT ACTIVITIES FEE

This is a mandatory fee set by the Board of Trustees. It is used to support programs and activities beneficial to students. The amount of the fee is $10.

STUDENT HEALTH FEE

This is a mandatory fee for all full time students set by the Board of Trustees used to support the University Health Services. The amount of the fee is $11.

MEDICAL/SURGICAL INSURANCE

An optional plan providing hospital, medical and surgical care on a twelve month basis for injuries or illness during the school year, holidays and summer vacation. Students who register for the Fall semester have only one opportunity to enter this program each year, at the time of payment of the Fall semester bill. It is also offered on the Spring semester bill for new Spring registrants only. Dependents of married students are not covered under this plan. Coverage for dependents is available at additional cost. Inquire at the University Health Services. The yearly fee is about $55.

TUITION AND FEE CHANGE

Tuition and fees may be changed without prior notice.

PAYMENT DUE DATES

In accordance with University policy all charges for tuition and fees are due and payable approximately 21 days prior to the date of registration of each semester. Bills will be rendered in advance with due date shown and should be returned with the proper payment to the Bursar's Office, University of Massachusetts at Boston, Boston, Massachusetts 02125. Students may not register until all University charges are paid or otherwise accounted for.

LATE PAYMENT

Any student who does not make payment of his/her semester charges by the date specified may be required to pay a late payment fee of $5.

VETERANS

Information concerning veterans status and payments under federal and state law is available at the Office of Veteran's Affairs. Tuition may be waived for Vietnam Veterans whose service was credited to the Commonwealth.

TUITION AND FEE REFUNDS

A student who leaves the University for any reason before a semester is completed, except as specified below, will be granted a pro rata refund of tuition and fees. A student who makes an advance payment and then for any reason does not attend any part of the next semester or term at the University will be given full refund of tuition and fees. A student who is involuntarily called into military service before the completion of a semester will be given pro rata refund of tuition and fees provided he receives no academic credit for work done in that semester. If academic credit is given, there will be no refund. A student who is suspended or expelled from the University for disciplinary reasons forfeits all rights to a refund.

Refunds are first applied to reimburse scholarships or loan funds (up to the full amount), and any remaining amount is refunded to the student.

REFUND SCHEDULE

REGULAR TERM

a. Within the first two weeks from the beginning of semester or term – (Registration Day) – 80%

b. During the third week – 60%

c. During the fourth week – 40%

d. During the fifth week – 20%

e. After the fifth week – no refund

WAIVER OF TUITION AND FEES

Tuition waivers for compensation are granted only to Assistants who receive stipends equal to at least half the current standard annual full-time assistantship stipend and who are appointed for a period of at least one full semester.

WAIVER OF TUITION FOR FULL-TIME COMMUNITY COLLEGE FACULTY

The Trustees of the University of Massachusetts have authorized waiver of tuition but not fees for faculty members of the Massachusetts Regional Community Colleges taking courses at the University of Massachusetts, providing the faculty members have been serving fulltime before taking such courses and return to full-time teaching in their Community College after completion of course work. When a faculty member who is eligible for such a tuition waiver desires to take a course at the University, his/her Community College President should write a memorandum certifying that he/she is a full-time faculty member. Such waivers will apply for the period from September 1 to the following August 31. Such faculty members must be accepted for admission by the Graduate Program prior to any registration.

FELLOWSHIPS AND ASSISTANTSHIPS

FEDERAL FELLOWSHIPS

The University participates in the various Federal fellowship programs sponsored by the National Defense Education Act (NDEA), the National Science Foundation, and the National Institutes of Health. Suitable applicants are recommended by the academic departments.

OTHER FELLOWSHIPS

Direct Fellowship awards are available from a number of foundations. Students may obtain information concerning these fellowships from the Director of Graduate Studies.

GRADUATE ASSISTANTSHIPS

The University offers a number of graduate assistantships in the research and instructional programs of the various departments. Graduate Assistants who receive University stipends are not required to pay tuition. For further information contact the Graduate Director or the Graduate Program Director in the department involved.

RESEARCH ASSISTANTSHIPS

A number of research assistantships are available to qualified graduate students. Stipends vary with the type of work and the amount of time involved. For further information the student should contact the Director of the program involved.

MAJOR FIELDS IN WHICH COURSES ARE OFFERED LEADING TO THE MASTER'S DEGREE:

Biology
Chemistry
English
History
Mathematics

MASTER'S DEGREE REQUIREMENTS

1. Thirty graduate credits. Up to six credits of grade B or better may be transferred from other institutions with the consent of the Department. Twenty-one of the 30 credits must be in the major field. If a thesis is offered, six credits must be earned in graduate courses; if a thesis is not offered, 12 credits must be earned in graduate courses. Not more than 10 credits may be earned by means of a thesis. No credit is valid after six years unless an appeal to the Department is sustained.

2. The thesis and general examination are optional with the school or department, but if required, they shall be under the supervision of a committee recommended by the major department. The Thesis Committee will consist of members of the Faculty at the discretion of the chairperson of the Department, and should be appointed as soon as possible after the student's first graduate registration. As soon as the student arrives on campus, and prior to the appointment of a thesis committee, an Advisor, or Guidance Committee, should be appointed for the student from the members of the Faculty. Once the student has selected his thesis topic, the Guidance Committee may serve as the Thesis Committee, although these two committies are not necessarily the same.

   The thesis must be approved by the Thesis Committee, the Department chairperson, the Advisor, and those members of the faculty in the major department designated by the Department chairperson to approve the thesis. The general examination (not limited to the thesis topic) is conducted by an examining committee of at least three members of the Faculty. The recommendation of a majority of the members of the examining committee shall be requisite to receiving the degree. If a student offers a thesis, problem courses shall be limited to six credits.

3. All foreign language requirements for the Master's degree are optional with the department.

4. Course credits used by any student for fulfilling the requirements for a Master's degree may not be used by the student for fulfilling the requirements for any other Master's degree at this University.

BIOLOGY

FACULTY

Professors Lawrence Kaplan, Herbert Lipke, Walter G. Rosen, James Nevin Weaver.

Associate Professors Ruth R. Bennett, John A. Freeberg, Bettina H. Harrison, Jeremy Hatch, Martha R. Matteo, Fuad Safwat, John H. Schultz, Edna Seaman, Richard H. White, Hilbert G. Wilkes, Jr.

Assistant Professors Kamaljit S. Bawa, William Hagar, Christine J. Kibel, George M. Langford, Bruce A. Menge, David Policansky, Michael Rex, Ruth Schmitter, Harland Sheerin.

THE PROGRAM

Our program is designed with flexibility in order to satisfy the aspirations of those who wish rigorous training leading to a degree of Master of Science in Biology.

Each student will be assigned to a three-member advising committee which will consider his/her training and aspirations and, in consultation with him/her, establish an appropriate program of study. The advising committee will be responsible for insuring that the candidate for a degree fulfills all requirements of the department and graduate school. The program may vary widely with the needs of the students, and the decision of whether or not to require an original thesis of Master's candidates will be made on an individual basis. Students who choose to write a thesis must enroll in Biology 900 (Thesis Research). All other students are required to take Biology 901 (Projects in Biology). In addition all students must take at least 1 semester of Biology 750 (Seminar in Biology) as partial fulfillment of Master's Degree requirements.

ADMISSION REQUIREMENTS

In addition to the University-wide requirements for admission to graduate school those admitted to the graduate program in biology will have to meet the following requirements: (1) The candidate must submit the results of the verbal and quantitative portions of the Graduate Record Examination. (2) The candidate must normally have a grade point average of 3.0 in all undergraduate science and mathematic courses.

FACILITIES AVAILABLE IN BIOLOGY

The facilities on the campus allow programs in most phases of biology. There are research laboratories for faculty members and graduate students and teaching laboratories for graduate courses. The facilities include all of those normally found in modern laboratories in the biological sciences.

The campus is located on Boston Harbor and therefore one type of marine environment is readily accessible to it. Much of our instruction will be built around the harbor. We also have a field station on Nantucket Island and through cooperative arrangements we have access to still other types of marine habitats. We will use the city and the harbor as a source of biological material and as a facility for biological studies. Through cooperation of the Waltham Field Station of the University, we have facilities for large plantings of botanical materials. There are a number of other institutions in the areas with which we have informal arrangements so that some rather specialized facilities can be made available if they are needed.

COURSE OF STUDY

All 600 level courses are open to both undergraduate and graduate students.

Many of the courses will be taught as tutorials by teams of faculty members sometimes from different departments. Since some of the courses will vary greatly in context with the needs of the students and the desires of the faculty, some of the courses may be taken for credit more than once. The courses will be offered only upon prior arrangement by the student or his adivising committee. Permission of the instructor is required for enrollment in all courses, and it is understood that the student will have the background necessary to handle the subject at the graduate level. In many courses the student will be expected to study from the original research literature in the field.

Biol 604 Biology of Cities
Aspects of the origin and development of cities relevant to human biology, food, air, water, energy, waste and flow of those resources into and out from cities.
Prerequisite: Introductory Biology
3 Lect-Disc Hrs and additional field trips — 3 Credits

Biol 610 Ethnobotany
Review of studies on plant use by primitive societies in historic and prehistoric times. Ordinarily offered in conjunction with biology 613.
Prerequisite: Permission of instructor, Biology 105, 220 recommended
2 Seminar or Tutorial Hours — 2 Credits

Biol 613 Archeological Botany
Laboratory tutorial. Recovery, identification and analysis of macroscopic remains, pollen and spores from archeological and geological deposits, interpretation of the data derived and their botanical, archeological and paleoecological applications.
Prerequisite: Permission of instructor, ordinarily biology 610 will be required, number of credit hours will be determined by prior consultation with instructor.
3 Lab-Disc Hrs Per Credit — 2-5 Credits
Mr. Kaplan

Biol 618 Evolution Under Domestication
The origin, evolution and phylogenetic relationships of domesticated and semi-domesticated plants and animals: the influence of cropping and herding on natural floras and faunas of the world.
Prerequisite: Biology 241-242 or equivalent and permission of instructor.
3 Lect Hrs and Saturday Field Trips 3 Credits
Mr. Weaver, Mr. Wilkes

Biol 630 Natural History of Marine Invertebrates
A lecture and field course, devoted to the examination of convergent and divergent ecological, behavioral and morphological adaptations of marine organisms in different habitats. The course will draw heavily on the resources of Boston Harbor. The first half of the semester consists of lectures and demonstration laboratories: the second half includes weekly field trips. The first half of the course will be indoor lectures – 3/wk – and demonstration laboratories – 1Hr/wk–. The second half will have 1-2 lectures/wk and one 4 Hr field trip/wk.
Prerequisite: Biology 211 or Biology 341-342 or 234 and/or permission of instructor.
Mr. Menge 3-5 Credits

Biol 638 Advanced Ecology
Concentration on important concepts of population and community ecology. Topics covered include population dynamics. Life history strategies. Theory of R- and K- selection, competition, predation, community organization, and species diversity. Particular emphasis is placed on the relationship between theoretical and empirical ecology. A weekly tutorial will provide opportunity for greater discussion of material covered in lecture.
Prerequisite: Biology 341-342 or permission of instructor.
2 Lect Hrs 1 Disc Hr 3 Credits
Mr. Menge

Biol 642 Biogeography
A study of geographical distribution patterns in plants and animals. Includes historical and descriptive aspects of the distributions of comparative tests of island biogeography theory. The population genetics and evolutionary strategies of colonizing species. Lectures by instructor, one discussion session per week, independent research by students that will be presented to the class in seminar form.
Prerequisite: Biology 341-342 or equivalent, some knowledge of statistics and calculus highly recommended.
Mr. Rex 3 Credits

Biol 644 Marine Botany
The systematics and ecology of marine plants, with emphasis on the algae. The current literature is employed to delineate unsolved problems.
Prerequisite; Biology 211-341 and Biology 241-242 and/or permission of instructor.
Staff 4 Credits

Biol 650 Advanced Ethology
Examination in depth of topics in the biological study of behavior -Ethology- with particular reference to communication and the evolution of social behavior. There will be lecture-discussions and lab exercises, also field trips.
For graduate students and seniors with appropriate background in biology 211 and 341, or psychology 265, and consent of instructor.
Mr. Hatch 2-6 Credits

Biol 660 Seminar in Developmental Biology
Prerequisite: Biology 211 and/or permission of instructor.
3 Sem-Disc Hrs 3 Credits
Staff

Biol 662 Photobiology
The photochemical reactions that occur in biological systems. Major ionic areas are 1. Properties of light energy 2. Utilization of light energy by photosynthetic organisms 3. Mechanism of visual transduction 4. Photochemical triggering mechanisms for developmental processes.
3 Lect Hrs 3 Credits
Mr Hagar, Mr. White

Biol 666 Seminar in Neurobiology
Structure, function and development of sensory receptors. Neurons and muscles.
Prerequisite: Biology 211 and/or permission of instructor.
3 Lect Hrs 3 Credits
Mr. White, Ms. Kibel, Ms. Bennett, Ms. Van Ummersen

Biol 668 Advanced Physiology
Experimental studies on two or three selected areas of organismal and cellular physiology will be conducted in depth each time the course is offered (probably spring term each year). Studies of sensory and nervous systems and of membrane transport will be the areas covered. Provisions will be made for independent projects during the course. One weekly seminar plus one weekly lab meeting. Open to graduate students and to qualified advanced undergraduates.
Prerequisite: Biology 216 or 372 or equivalent, organic chemistry; physics, also permission of instructors.
1 Seminar Hr; 3-4 Lab Hrs 3-4 Credits
Ms. Bennet, Mr. Sheerin, Mr. Langford, Mr. White

Biol 670 Tissue and Organ Culture
Methods of plant and animal tissue and organ culture will be presented with special emphasis on problems of differentiation and morphogenesis in vitro. Introduction of certain techniques now used in plant protoplast culture and for hybridization of somatic cells in plants and animals. Provisions will be made for independent projects during the course.
Prerequisite: Permission of instructor.
1 Lect Hr, 6 Lab Hrs 3-4 Credits
Mr. Safwat, Ms. Van Ummersen

Biol 672-673 Directed Readings in Biology
Selected readings in advanced areas of biology with guidance and regular discussion.
Prerequisite: Permission of instructor.
Staff 1 Credit

Biol 702 Plant Physiology
Current developments in plant physiology, morphogenesis and biochemistry.
Prerequisite: Permission of instructor.
Hrs by Arrangement 3-5 Credits
Staff

Biol 712 Advanced Cell Biology
The analysis of gene transfer and expression at the cellular level, including the nature of metabolic systems and the factors governing their regulation.
Prerequisite: Permission of instructor.
Hrs by Arrangement 3-5 Credits
Staff

Biol 714 Advanced Cell Chemistry
The methodology of cell analysis, with emphasis on macromolecules and intermediary metabolites.
Prerequisite; Permission of instructor.
Hrs by Arrangement 3-5 Credits
Staff

Biol 722 Concepts and Methods in Cytology
The structural basis of cellular and subcellular functions, with practical experience in methods of visualizing cellular structure.
Prerequisite: Permission of instructor.
Hrs by Arrangement 3-5 Credits
Staff

Biol 732 Advanced Evolution
An inquiry into the modern synthetic theory of evolution with emphasis on population genetics, ecological genetics, evolution of dominance, genetic homeostasis, canalization and genetic theory of polymorphism.
Prerequisite: Permission of instructor.
Hrs by Arrangement 3 Credits
Staff

Biol 742 Behavior Ecology of Seabirds
Adaptations of seabirds to the marine environment with particular reference to breeding biology and feeding strategies; other topics of current interest in behavioral ecology. Lectures or lecture and field work.
Prerequisite: Permission of instructor.
Hrs by Arrangement 2-5 Credits
Staff

Biol 744 Pollutants in Marine Food Chains
Examination in depth of the entry of selected pollutants into the oceans, their movements, distribution, and effects within marine organisms. Where possible, case studies from New England will be used.
Prerequisite: Organic Chemistry, physiology, ecology, and permission of instructor.
Hrs by Arrangement 2 Credits
Staff

Biol 750 Seminar in Biology
A seminar to develop skills in library research and oral presentation. Each student will have a faculty advisor who will supervise his preparation for the seminars. All graduate students must take at least one semester of this course.
Hrs by Arrangement 1 Credit
Staff

Biol 752 Educational Concepts in Biology
Alternate forms of course programs and different methods of teaching are considered. Guest speakers, panel discussions and audio-visual material will be part of this course.
Prerequisite: Permission of instructor.
Hrs by Arrangement 2 Credits
Staff

Biol 770 Concepts in Modern Biology
A field of biology of current interest in examined in detail.
Prerequisite: Permission of instructor.
Hrs by Arrangement 2-5 Credits
Staff

Biol 900 Thesis Research
Substantial laboratory or field research resulting in a master's thesis. This course may not substitute for Biol 901 (these two courses are mutually exclusive). No more than 10 credits of this course may be applied to the master's degree. The credit may be applied over more than one semester.
Hrs by Arrangement 10 Credits
Staff

Biol 901 Projects in Biology
A substantial written report based on a library research or an original project such as curriculum design, design of teaching aids and exercised, critique of a book or theory, etc. Biol 900 and Biol 901 are mutually exclusive. No more than 6 credits of this course may be applied to the Masters Degree. The credit may be applied over more than one semester.
Hrs by Arrangement 6 Credits
Staff

CHEMISTRY

FACULTY

Professors Jean-Pierre Anselme, Ernest I. Becker, Thomas Margulis, Chi-Hua Wang.

Associate Professors Joseph Alper, Robert Gelb, Daniel Laufer, Lowell Schwartz, Hans Van Willigen, Leverett Zompa.

Assistant Professors Garabet Kassakhian, Tamar Posner, Walter Weibrecht, Elliot Weinstock.

THE PROGRAM

A Master's Degree Program is offered which will serve graduate students with interests in chemical research as well as students with interests in some interdisciplinary, chemistry-related field. The degree requirements are flexible in order to allow a student to take as many as half his graduate courses outside of chemistry and to enable him to submit a thesis in a tangential area. We envisage candidates working in such widely diverging fields as laboratory research, chemical economics, history of chemistry, biological chemistry, and chemical writing and editing. All candidates for the degree of Master of Science are required to take one graduate chemistry course in each of the three areas of Synthesis, Structure, and Dynamics. These courses, which cut across the traditional boundaries of Organic, Inorganic, Analytical and Physical Chemistry, are designed to give the students of diverse backgrounds and with diverse aims a broad overview of the recent advances in chemistry. Three elective courses will allow the student to specialize in a field of his choice. Thus, for students aiming toward a research oriented Ph.D. degree, the option is available of taking a maximum number of chemistry courses and electing to work on a research project.

This flexible program is designed for recent graduates as well as people having positions in high schools, community colleges and industry who are seeking advancement by extending professional training. Attempts will be made to make scheduling arrangements for those who must study part-time.

FACILITIES AVAILABLE IN CHEMISTRY

The Department of Chemistry is housed in the spacious, air-conditioned Science Building of the Harbor Campus. Facilities include laboratory space for research of fifteen faculty, a science library, glass-blowing, machine and electronics shops.

Research facilities presently available include:

Numerous uv, vis and ir spectrophotometers
an ORD/CD and laser Raman spectrophotometer
nuclear magnetic resonance and electron spin resonance equipment
a fully equipped laboratory for X-ray crystallographic studies
instruments for flash photolysis
electroanalytical and radiochemistry equipment
analytical and preparative gaschromatographs
extensive computing facilities

DEGREE REQUIREMENTS

The candidate is required:

1. To take six one-semester courses of which one is to be in each of the areas of Dynamics, Structure, and Synthesis (3 credits per course).
2. To submit an original contribution (thesis) in chemistry or in a chemistry related field (10 credits maximum).
3. To participate in a seminar program (1 credit per semester).

The elective courses can be selected from course offerings of other Departments in the University subject to approval of the Graduate Committee of the Department.

For graduation the candidate needs 30 graduate credits. Up to six credits of grade B or better may be transferred from other institutions subject to the approval of the Graduate Committee of the Department.

Chem 701 Chemical Dynamics I
Discussions and outside readings in the areas of chemical and physical equilibria and rate processes. Emphasis on thermodynamics from classical and statistical points of view and on chemical reaction mechanisms.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by Arrangement 3 Credits
Staff

Chem 721 Chemical Synthesis I
The tactics and strategy of accomplishing the synthesis of a chemical substance. Examples of organic and inorganic systems.
Prerequisite; Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by Arrangement 3 Credits
Staff

Chem 722 Chemical Synthesis II
The synthesis and characterization of a number of representative organic and inorganic compounds.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by Arrangement 3 Credits
Staff

Chem 900 Master's Thesis
10 Credits Maximum
Hrs by Arrangement 1-10 Credits
Staff

Chem 925 Seminar I
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by Arrangement 1 Credit

Chem 702 Chemical Dynamics II
Three or four selected topics of interest to students and staff involved. Typical subjects – molecular transport processes and the Kinetic Theory, photochemistry and excitation transfer processes, surface and electrode rate processes, particle collision dynamics and reactivity, irreversible thermodynamics, interaction of radiation and matter, and molecular state transitions.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by Arrangement 3 Credits
Staff

Chem 711 Chemical Structure I
Structure determination and theory. Three or four molecules of interest to the students and faculty involved are chosen. Based on these molecules, discussions, readings and laboratory exercises attempt to show how a chemist determines each structure and how the structure is understood by modern chemical theory.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by Arrangement 3 Credits
Staff

Chem 712 Chemical Structure II
In tutorial form. Individual students study advanced structure topics with appropriate staff members.
Prerequisite: Acceptance into the Graduate Chemistry Program, or permission of instructor.
Hrs by Arrangement 3 Credits
Staff

ENGLISH

FACULTY

Professors Max Bluestone, James Broderick, Mary Curran, Mary Anne Ferguson, Philip Finkelpearl, Edwin Gittleman, F. Russell Hart, Seymour Katz, Emerson Marks, Alvan Ryan, Irvin Stock, Taylor Stoehr.

Associate Professors Don Babcock, Ann Berthoff, Joel Blair, Kenneth Frederick, Richard Lyons, John Marvin, Dorothy Mull, Duncan Nelson, Shaun O'Connell, Ronald Schreiver, George Slover, James Sweeney, Joseph Tribble, Frederick Willey.

Assistant Professors Charles Bowen, Josephine Bunselmeyer, Martha Collins, Robert Crossley, Thadious Davis, Linda Dittmar, Albert Divver, Harriet Feinberg, Christopher Gay, James Grove, Alan Helms, Susan Horton, Monica McAlpine, Margaret McGavran, Richard Morahan, Theodore Richer, Carole Robinson, Mary Shaner, George Smith, Cornelia Veenendaal, Igor Webb.

THE PROGRAM

The Master's of Arts Degree Program in English is designed to serve three groups of students: those who intend later to study for the Ph.D.; those engaged in, or intending to pursue, careers in the teaching of English at the secondary level or two-year college level; and those who simply enjoy English and American Literature and wish to increase their understanding and enjoyment. Graduate enrollment is small. All graduate classes are offered during the late afternoon hours and are conducted as seminars, averaging from 6 to 10 students in each. The degree candidate may also propose a semester's unit of independent study and/or writing which, if approved, may substitute for one required semester course. All graduate courses carry five credits.

DEGREE REQUIREMENTS:

Requirements for the M.A. Degree in English include the satisfactory completion of six semester graduate-level courses (30 credits). The graduate student may enroll in two advanced undergraduate courses in English or related fields at University of Massachusetts at Boston and substitute these two courses for one of the six graduate courses required for the degree. A student wishing to transfer credits earned elsewhere may petition for evaluation of such credits up to six (6) transfer credits may be accepted. The degree candidate must earn at least a 3.0 (B) cumulative average in courses taken for graduate credit at University of Massachusetts at Boston.

A graduate student must demonstrate a reading knowledge of one foreign language, ancient or modern. The reading knowledge may be demonstrated either by achieving a score of 575 or better on the ETS Graduate School Foreign Language Test (GSFLT administered from Princeton, N.J.), or by earning an A or B in an advanced undergraduate foreign literature course (400 level) at the University of Massachusetts at Boston in which works will be read in the original foreign language. The language requirement will also be fulfilled if the student has earned an A or B in such a course as an undergraduate at University of Massachusetts at Boston, or (by petition) in a course at an equivalent level elsewhere. Students who plan a career limited to secondary-school teaching, and who have no intention of later proceeding to the Ph.D., may petition for the waiver of the foreign language requirement. Waiver will also be granted to students whose command of an approved foreign language is so obvious as to make further examination of course requirement superfluous.

ADMISSION TO THE PROGRAM:

The Committee will offer admission to the program to those applicants who present evidence of their ability to do graduate work with distinction. Such evidence will include: (1) a distinguished undergraduate transcript with, generally, at least an average of B or 3.0 in undergraduate English courses; (2) at least three encouraging and informed letters of recommendation from the applicant's undergraduate teachers (in English or related fields) or from others competent of comment on the applicant's academic qualifications; (3) a statement by the applicant (of 800 to 1200 words) of his major interests in the advanced study of English. While not required, the submission of Graduate Record Examination Aptitude scores (Verbal and Mathematical) is highly recommended. For further information and for application forms, please write to the Director of Graduate Studies, University of Massachusetts at Boston, Boston, Massachusetts 02125.

COURSE OF STUDY

Engl 701 Image in America
An examination of the way in which America has responded to the concept of the new world and the image of self and nation that has evolved through the 1860's.
Staff — 5 Credits

Engl 702 The Black Presence
Study of selected literary texts of the last two-hundred years by major and minor authors who wrote with a special consciousness of the significance of Black people in American society.
2 Lect Hrs — 5 Credits
Staff

Engl 703 Regional Literature
The subject of the course is the regional consciousness in representative works of modern American

writers of the South and New England. We will explore the role that the sense of history (the impingement of the past on the present), the sense of place and the response to the natural world play in the work of Southern and New England writers.
2 Lect Hrs 5 Credits
Staff

Engl 704 Hawthorne and James
A study of the relationship between the fiction of Hawthorne and James, focusing on Jame's criticism of Hawthorne.
2 Lect Hrs 5 Credits
Mr. Katz

Engl 705 Contemporary American Fiction
A study of the scope (times and types) and strains (types and tensions) in the post WWII, post Modern American Novel, with special attention to the persistence of realism. The insistent presence of surrealism, and the sometime combination of the two.
2 Lect Hrs 5 Credits

Engl 706 Modern American Poetry
Studies in the poetry and selected prose of Robert Frost, E.A. Robinson, Robert Lowell, and Alan Tate, with complementary readings in other Modern American Poets.
2 Lect Hrs 5 Credits
Mr. Ryan

Engl 707 Colonial American Literature
Study of literary works written in American before there was a politically independent American nation. Not only "representative" works, but also major texts with a significance which transcends the colonial period.
Staff 5 Credits

Engl 720 Chaucer
A study of Chaucer's major work in the Middle English. Special attention to such considerations as Chaucer's poetic development, his relations to his sources, medieval literary theory, and the social, political, and religious backgrounds.
2 Lect Hrs 5 Credits
Ms. McAlpine

Engl 721 English Literature, Medieval to the Renaissance
A survey of the literature of England, exclusive of Shakespearean drama, from 1485 through 1625. Special attention will be given to historical and cultural backgrounds, to linguistic characteristics of the period, and to the interrelationships between the course readings and Shakespeare's work.
2 Lect Hrs 5 Credits
Staff

Engl 722 Tudor and Stuart Drama
Elizabethan and Jacobean Drama is a remarkably fertile and rewarding field of study, even without Shakespeare. Readings of one or more plays by Marlowe, Dekker, Jonson, Marston, Tourneur, Middleton, Webster, Chapman, Beaumont and Fletcher, and Ford. The approach will be simultaneously literary, theatrical and historical.
Staff 5 Credits

Engl 723 Metaphysical Poetry
The course will survey the major English poets called "metaphysical" in their historical context. It will begin with a study of Donne's lyrics and then move to Herbert, Vaughan, Crashaw and Marvell. As the readings develop, the class will be asked to explore the historical and contextual evidence for designating these writers "metaphysical" poets, and whether they in fact form an identifiable "school" of poetry.
Mr. Divver 5 Credits

Engl 725 Milton
A study of the poetry and major prose with particular attention to Paradise Lost. We will consider Milton's choosing among stylistic option and the development of his style, his reworking of and sometimes radical departure from traditional literary forms, his preoccupation with the subject of freedom and his efforts to extend crucial choices to the reader, and the reasons why criticism of Milton has not had a tranquil history.
Mr. Smith 5 Credits

Engl 731 English Literature, 1660-1750
A study of the ways man is viewed by the major English writers from 1660-1750 and an examination of the Generes through which these views were expressed. Authors to be studied include Dryden, Swift, Pope, and Fielding.
2 Lect Hrs 5 Credits
Staff

Engl 732 English Literature, 1750-1830
An inquiry into the nature and cause of literary change in cultural history in English Literature from 1750-1830. Authors to be studied include Gibbon, Johnson, Goldsmith, Sterne, Blake, Carlyle, Coleridge, Wordsworth, Byron, and Keats.
2 Lect Hrs 5 Credits
Staff

Engl 733 Augustan Satire
Study of the Major Augustan Satirists – Dryden, Swift, and Pope – with attention paid to the works of Rochester, Addison, Gay, and Fielding: consideration to the critical questions arising from the study of satire.
2 Lect Hrs 5 Credits
Mr. Blair

Engl 741 Romantic Literature
The seminar will approach the unity of romanticism through consideration of three important modes of British Poetry, fiction and criticism in the period from C. 1790 to C. 1832: the visionary (primarily Blake and Wordsworth), the picturesque (Scott and Byron), and the aesthetic (chiefly Keats, with related readings in the criticism of Hazlitt).
2 Lect Hrs 5 Credits
Staff

Engl 746 Victorian Literature
Aestheticism and socialism in Victorian Literature. The subject of the course is the development of two issues in the work of some major Victorian writers: the movement away from the Classical view that art

is normative to an increasing acceptance of the view that art is autotelic: and an accompanying movement away from a special concern with art to a concentration on social reform.
2 Lect Hrs 5 Credits
Staff

Engl 751 Modern Poetry
A study of the major figures and currents in Modern British Poetry: Hardy, Hopkins, Eliot, Auden, Lowell, Ginsberg.
2 Lect Hrs 5 Credits
Staff

Engl 752 Modern British Fiction—Lawrence and Woolf
A comparative of the major novels of D.H. Lawrence and Virginia Woolf with particular attention paid to the two writer's conception of the nature and function of the novel and to their relation to the literary contexts of the period, 1914-1940.
2 Lect Hrs 5 Credits
Mr. Lyons

Engl 761 Studies in the Novel
Studies in the nature of prose fiction and the major kinds of novels. A reading of representative novels in English and American Literature. With the permission of the Director of Graduate Studies in English, this course may be repeated for credit.
2 Lect Hrs 5 Credits
Staff

Engl 762 Studies in Drama
A study of English and American Drama from an awareness of its European contexts. Plays discussed will come from the major periods of Western Drama and will provide examples of the major kinds of drama.
2 Lect Hrs 5 Credits
Staff

Engl 767 Shakespeare
Shakespeare's idea of dramatic art as revealed in explorations of one of the following topics — the plays and their sources, theatrical self-consciousness, Shakespeare's language of the theater. Seminar papers will require the acquisition of familiarity with methods of research into the Shakespeare Bibliography of criticism and scholarship. Because the seminar papers in addition will attempt to define, special attention will be accorded to the problems of formal definition. The seminar will assure that students will have had at least one course in Shakespeare's plays, but students with special interests in the seminar topics are invited to discuss with the instructor a waiver of this assumption.
2 Lect Hrs 5 Credits
Mr. Bluestone

Engl 768 Arnold and Elliot
The study of two important men of letters who both reflected and criticized the main artistic and intellectual currents of their time. Readings from their poetry, literary criticism, and social commentary as well as selected writings contemporary with each author.

Engl 771 Faulkner
A reading of all the major fiction centered in Yoknapatawpha County, with an intensive study of certain texts (selected by the class after discussion at the first meeting). The works will not necessarily be read in chronological order.
2 Lect Hrs 5 Credits
Staff

Engl 776 Studies in Criticism
Study of the nature and function of literature, the terms and methods of analysis and evaluation of literature, and the various approaches possible in the criticism of literature.
2 Lect Hrs 5 Credits
Mr. Marks
Staff

Engl 777 Teaching of Literature
Theories and practice of the teaching of literature, considered in the context of current models of the Liberal Arts College and of current issues in humanities curricula.
2 Lect Hrs 5 Credits
Staff

Engl 786 Literature and Society -19th Century England-
A study of literature with special reference to its social and historical circumstances and of the theoretical questions raised by such a perspective. Authors to be studied include Austen, Cobbett, Gaskell, Dickens, Engels, Charlotte Bronte, and Lawrence.
2 Lect Hrs 5 Credits
Mr. Webb

Engl 791 Literature and Composition
The course will offer opportunities to identify and define those acts of mind involved in composing and to carry out experiments designed to reveal the nature of symbolic transformation as the fundamental operation in perception and concept formation as well as in the creation of works of imaginative literature.
2 Lect Hrs 5 Credits
Staff

Engl 792 Introduction to Linguistics
The course will, first, raise large questions behind the study of linguistics: what is the relationship between language and thought? To what extent do words create reality? Then, the course will survey the application of linguistics to the study of literature, the analysis and teaching of syntax and grammer, and the fields of psychology, sociology, and biology.
Staff 5 Credits

Engl 800 Independent Study
A comprehensive study of a particular area of literature, a particular author, etc. Consultation with the Director of Graduate studies is mandatory. Applications/outlines of study must be submitted at the end of the semester previous to the study. Approval by Graduate Committee.
Staff 5 Credits

HISTORY

FACULTY

Professors Paul Boller, Francis Broderick, Thomas Brown, Paul Gagnon, A. Carter Jefferson, William Percy, Richard Powers, Roger Prouty, Eric Robinson, Louis Ruchames.

Associate Professors Feroz Ahmad, I. Linda Gordon, David Hunt, Esther Kingston-Mann, Pauline Maier, Susan Schneider, Lester Segal, Marshall Shatz, Renee Watkins.

Assistant Professors Herbert Bix, Paul Bookbinder, Spencer DiScala, Paul Faler, Michael Feldberg, Clive Foss, Frances Hoffman, Michael McCahill, Timothy McCarthy, Sheldon Stern, Sherrin Wyntjes.

PROGRAM AND REQUIREMENTS

This is an intensive, one-year program open to a limited number of full time students each year.

At present 24 hours credit are required. These include two upper level undergraduate courses taken for graduate credit in each the spring and fall terms, a graduate colloquim (6 credits; fall term), and a research seminar (6 credits; spring term). Half of the undergraduate courses may be taken, with the agreement of the committee for graduate studies in history, in disciplines other than history. Every student is expected to complete a 30 to 50 page research paper in the research seminar.

All students are required to demonstrate a reading knowledge of one foreign language by taking an examination administered by the Departments of History, and to complete the program in one calendar year.

COURSES

Apart from the Graduate Colloquium in the first semester, there are, at present, no special Graduate Courses offered, but students are encouraged to choose their faculty advisor early and to begin planning their Graduate Thesis in co-ordination with other courses.

The faculty of the Department of History have more than thirty members, offering a wide range of specializations in American, European, African, Asian History as well as in Social, Economic, Political and Intellectual History.

Hist 207 Introduction to Classical Archeology
Offered jointly by the Art and History Departments. A survey of the art, archeology, and history of Bronze Age Greece and Asia Minor. Introduction to the methods and aims of archeology and to the geographical and historical background of the period. The major area cultures — the Minoan Civilizations, Mycenaean Greece, Troy, and the Hittite Empire.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs — 3 Credits
Mr. Foss, Mr. Ramage

Hist 208 Greek History
A survey of the origin, rise and development of Ancient Greek Civilization from the arrival of the Greeks in Europe until the death of Cleopatra. Emphasis on the rise of the Greek City-State and the spread of Greek culture to the East.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs — 3 Credits
Mr. Foss

Hist 209 Roman History
The Roman State from its origins until the triumph of Christianity. Republic and Empire will receive equal attention. Closely related to History 208. The two courses provide a continuous history of the Mediterranean World from about 700 B.C. to 300 A.D.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs — 3 Credits
Mr. Foss

Hist 210 Early Middle Ages
Medieval History from Marcus Aurelius to approximately 1000 A.D.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs — 3 Credits
Mr. Percy

History 211 Later Middle Ages
Medieval History from 1000 A.D. to the Italian Renaissance.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs — 3 Credits
Mr. Percy

Hist 212-213 Age of the Renaissance and Reformation III
Men, ideas, and institutions of 14th century through 16th century Europe.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs — 3 Credits
Ms. Watkins

Hist 215 Eighteenth Century Europe – Europe in the Age of Enlightment

The main currents of European thought in their historical setting.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs 3 Credits
Mr. Grossman

Hist 222 England in the Age of Revolution

English History since 1689, with emphasis on the transformation of life and institutions in the eighteenth and nineteenth centuries.
Prerequisite: Introductory history or departmental approval.
3 Lect Hrs 3 Credits
Staff

Hist 223 Early Modern France: Evolution of the Ancien Regime

Social, political, and intellectual currents and institutions in France from the Renaissance to the end of the ancien regime.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Segal

Hist 224 France, 1815 to the Present

The development of parliametary institutions and crises in their social, economic and intellectual settings and France's role in the world.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Gagnon

Hist 225 Russian History I

A survey of the political, economic, social and intellectual development of Russia, from Kiev to the emancipation of the Serfs in 1861.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Shatz, Ms. Kingston-Mann

Hist 226 Russian History II

A survey of the political, economic, social and intellectual development of Russia, from 1861 through the Soviet Union in the Second World War.
3 Lect Hrs 3 Credits
Mr. Shatz, Ms. Kingston-Mann

Hist 227 German History to 1815

Medieval origins of Germany, the reformation, the rise of Brandenburg-Prussia, the German Enlightenment, Germany and the French Revolution.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Bookbinder

Hist 228 German History Since 1815

German Liberalism, Nationalism, Conservatism in nineteenth century, Revolution of 1848, Unification, World War I, Weimar, and the Nazi Period.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Bookbinder

Hist 216 Age of Baroque

Europe in the seventeenth century – study of a period during which, in the midst of religious and political struggles, a new world order emerges. An age that witnessed a transformation from traditional thinking to new scientific categories and a flowering of new expressions in the arts.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Grossman

Hist 217 Europe in the Nineteenth Century I

A political, social and cultural history of Europe from 1815 to 1871, including the history of each major European nation.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Powers

Hist 218 Europe in the Nineteenth Century II

A political, social and cultural history of Europe from 1871 to 1914, including the history of each major European nation.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Powers

Hist 219 Europe in the Twentieth Century I

Political, economic, social, and intellectual history of Europe, with attention to Extra-European influences, from 1900 to 1939.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Gagnon, Mr. Jefferson

Hist 220 Europe in the Twentieth Century II

Political, economic, social, and intellectual history of Europe, with attention to Extra-European influences, from 1939 to the present.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Gagnon, Mr. Jefferson

Hist 221 Tudor-Stuart England

An introduction of English History before 1689. Emphasis on the political crises of the sixteenth and seventeenth centuries.
Prerequisite: Introductory history or departmental approval.
3 Lect Hrs 3 Credits
Mr. McCahill

Hist 229 The History of Italy, from the Renaissance to 1870
Developments in Italy from the end of the Renaissance to 1870, with emphasis on the eighteenth century and the risorgimento.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Di Scala

Hist 230 The History of Italy, 1870 to the Present
Italian History since 1870, including an examination of giolittian, fascist and republican Italy.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Di Scala

Hist 231 Irish History, 1688 to 1923
The forces and movements which contributed to the development of Irish nationalism and the achievement of national independence.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. McCahill

Hist 232 Spain and Portugal Since 1469
This course will examine why Spain and Portugal played leading roles in world history until the 17th century and the reasons for their decline, as well as comparing Iberian enlightened despotism, liberalism and conservatism, industrialization, fascism, and neocolonialism with their counterparts in other areas of Europe and the world.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Staff

Hist 233 English History, 1485 to 1800
This course will deal with the transformations within early modern english society that culminate in the hierarchical community of the eighteenth century and the emergence of a stable political order reflecting the balance of interests in society.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. McCahill

Hist 234 English History, 1750 to the Present
A general introduction to the history of Modern England.
Prerequisite: Introductory History
3 Lect Hrs 3 Credits
Mr. Prouty

Hist 237 Jewish History, Antiquity to the Early Middle Ages
Political, social and intellectual development in Jewish society from biblical antiquity to the early centuries of the Christian era. Attention to the interaction with Ancient Near Eastern, Graeco-Roman, and Christian societies and cultures.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Segal

Hist 238 Jewish History, from the Spanish Expulsion to Modern Statehood
Political, social and intellectual development in Jewish society in Western and Eastern Europe and the Near East from the late 15th century to the creation of Israel in 1948. Attention to -Jewish experience in the age of absolutism and mercantilism, marranos and messianism, Polish Jewry and hassidism, enlightenment, emancipation and 19th century responses to modernism, Jewish experience in the 20th century.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Segal

Hist 239 The Middle East, 622 to 1517
Interaction between Islamic society and the West from the rise of Islam in 622 to the Turkish conquest of Egypt.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs. 3 Credits
Mr. Ahmad, Ms. Hoffman

Hist 240 The Middle East, 1517 to the Present
The Middle Eastern Response to the West in the age of European expansion and domination.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Ahmad, Ms. Hoffman

Hist 241 From Rebellion to Independence: India Since 1857
This course is intended to be an introduction to the Indian subcontinent as it emerged from British rule to independence. It is designed for students who are interested in this area and the third world, regardless of their majors. The framework of the course is historical but it also deals with the social and religious institutions such as the caste system, as well as economic and political change in a traditional society.
3 Lect Hrs 3 Credits
Mr. Ahmad

Hist 242 Modernization of the Middle East and Japan in the 19th Century
The transformation of traditional social structures in nineteenth century Japan and the Middle East. This course is designed to introduce students to two widely divergent traditional cultures, grappling with the common problem of an aggressive, industrializing West. It analyzes the reasons for successful transition to modern nation-state status in the case of one -Japan- and for failure in the case of the other -Middle East-. The comparative approach to Japanese and Middle Eastern historical materials, will hopefully sensitize students to different organizing concepts used by historians in presenting the histories of non-Western peoples. It will also make them aware of the complex relationships between internal and external factors in the process of social change.
3 Lect Hrs 3 Credits
Mr. Ahmad, Mr. Bix

Hist 243 Problems in African Civilization
Intensive study of the interaction between Islam as a socio-political and spiritual phenomenon and traditional African societies. Problem oriented, rather than chronological, approach. The origins and spread of Islam to Sub-Saharan Africa, patterns of Islamization, growth of centralized political institutions, the role of Muslim brotherhoods, mahdism and messianic movements, development of Afro-Islamic literature and scholarship–Swahili, Hausa and Arabic, and the influence of Islam on modern nationalism and Pan-Africanism.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Amiji

Hist 244 History of East Africa
Modernization and social change in Kenya, Uganda and Tanzania. Such topics as the proto-nationalism movements of the nineteenth century, the politics of survival in the inter-war period, the problems of European and Indian settlers, the development of political parties and liberation movements, particularly the Mau Mau movement, African socialism, and the problems of ethnicity and national integration.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs 3 Credits
Mr. Amiji

Hist 248 Modern Japan
A historical survey of economic, social, political and cultural developments in Japan from 1800 to the present, special consideration of economic and foreign policy problems.
Prerequisite: Sophomore standing or departmental approval
3 Lect Hrs 3 Credits
Mr. Bix

Hist 249 History of Contemporary East Asia
Case studies of Japan, Korea, the Philippines and Indochina since World War II. The American occupation of Japan, the factors involved in its resurgence in the 50's and 60's, the colonial heritage in Korea, the Philippines and Indochina as background for the study of war, revolution and modernization in these areas.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Bix

Hist 250 Modern Vietnam
Social and political history of Vietnam within the context of great-power rivalries.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Bix

Hist 270 American Colonial History, The Earliest Settlements to 1763
The English background of emigration and settlement. The evolution of imperial institutions, American social, economic, and religious development. Emphasis on political ideas, institutions and behavior in the 17th and 18th centuries.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Ms. Maier

Hist 271 Age of the American Revolution, 1763 to 1789
The development of the conflict with Britain, 1763-1776, the Revolutionary War and its effects, the forming of republican institutions for state and federal governments.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Ms. Maier

Hist 273 The Age of Jackson and Lincoln
A social, economic, political and cultural history of the United States from 1815 to 1861.
Prerequisite: History 265 and 266 or Junior standing.
3 Lect Hrs 3 Credits
Mr. Ruchames

Hist 274 Civil War and Reconstruction History
Causes of the Civil War, its social, political, and ideological history, and the problems and results of Southern reconstruction.
Prerequisite: History 265 and 266 or Junior standing.
3 Lect Hrs 3 Credits
Mr. Ruchames

Hist 276 The United States in the Twentieth Century, 1900 to 1937
American politics and culture from the progressive period through the new deal.
Prerequisite: History 266 or permission of instructor.
3 Lect Hrs 3 Credits
Mr. Brown

Hist 277 The United States in the Twentieth Century, 1937 to the Present
American politics and culture from the new deal to the present.
Prerequisite: History 266 or permission of instructor.
3 Lect Hrs 3 Credits
Mr. Brown

Hist 282 Colonial Latin America
The imposition of Spanish and Portuguese institutions on the Pre-Columbian civilizations in the New World, and the economic, social, religious, political, and cultural institutions that developed in Latin America. Emphasis on the differences and similarities between colonial Latin America and other contemporary and later empires.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Ms. Schneider
This course is a requirement for the Latin American studies concentration.

Hist 283 Latin America, Independence to the Present
The histories of Mexico, Argentina, Brazil and Cuba since 1800. Emphasis on British and American economic expansion into these countries during the 19th and 20th centuries, and the resulting political and social consequences.
Prerequisite: Sophomore standing or departmental approval.
3 Lect Hrs 3 Credits
Ms. Schneider
This course is a requirement for the Latin American studies concentration.

Hist 305 The Expansion of Europe 1400-1920
This course will trace the preconditions of the intellectual geographic, and commercial expansion of Europe from the 15th to the 18th centuries. It will review the age of discovery and examine the relation between ideology, trade, and colonization, the impact of Non-European civilizations upon Western Europe, and the rise and decline of the mercantile empires of Portugal, Spain, England, and the Netherlands.
Prerequisite: Introductory History.
3 Lect Hrs 3 Credits
Ms. Wyntjis

Hist 308 Diplomatic History of Europe, 1815 to 1914
The diplomacy of the concert of Europe, the Eastern question and Bismark and of imperialism leading to the outbreak of war in 1914.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Ahmad

Hist 309 Diplomatic History of Europe, 1914 to the Present
The system of collective security set up after World War I, and the failure of this system before the Second World War. Discussion of the origins and consequences of the Cold War.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Ahmad

Hist 310 Economic History of Western Europe to 1750
A survey emphasizing the interrelationship of economic life and demographic, social, political, and religious development. Particular emphasis on the development of capitalism and Laissez-Faire.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Staff

Hist 311 Economic History of Western Europe Since 1750
The economics of Western Europe from 1750 to the present.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Staff

Hist 314 History of European Ideas I
Main currents of European thought in the seventeenth and eighteenth century.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Powers

Hist 315 History of European Ideas II
Main currents of European thought in the nineteenth and early twentieth century.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Powers

Hist 317 The American University
A review of the traditional function and character of higher education in American society, and an examination of recent fundamental changes in both.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Powers

Hist 320 History of American Foreign Policy, 1763 to 1900
Survey of United States foreign policy and relations with the rest of the world. From the colonial period to the end of the nineteenth century. Emphasis on domestic sources of foreign policy and U.S. expansionism.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Remsberg

Hist 321 History of African Foreign Policy, The Twentieth Century
Survey of United States foreign policy and diplomatic relations with other powers from the turn of the century to the 1960s. Emphasis on domestic sources of foreign policies and on general topics such as World Wars I and II, Cold War diplomacy, and the debate over America's role in world affairs.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Remsberg

Hist 323 History of Boston
A general survey from 1630 to the present emphasizing the variety of people who gave this seaport its special character and prominence in American history.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Prouty

Hist 324 American Social History to the Civil War
The emergence of social institutions in America from the establishment of colonies to the mid-nineteenth century.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Feldberg

Hist 325 American Social History from the Civil War to the Present
The American dream as it has related to institutions and ethnic groups in twentieth century U.S.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Feldberg

Hist 326 History of American Thought to the Civil War
Ideas in America–religious, scientific, political, social and economic–from the colonial period to the Civil War.
Prerequisite: History 265 and 266 or Junior standing.
3 Lect Hrs 3 Credits
Mr. Boller, Mr. Broderick

Hist 327 History of American Thought from the Civil War to the Present
Ideas in America–religious, scientific, political, social and economic–from the civil war to the new deal.
Prerequisite: History 265 and 266 or Junior standing.
3 Lect Hrs 3 Credits
Mr. Boller, Mr. Broderick

Hist 328 Black History in America I
The history of Black people in America from African origins through the conclusion of reconstruction in 1877. The development of slavery in the South and life in the cities of the North. Particularly through original accounts by Black Americans.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Stern

Hist 329 Black History in America II
The experience of Black Americans from the rise of Jim Crow after 1877 through the emergence of the Black challenge to American racial values and institutions in the 1950s and the 1960s.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Stern

Hist 330 History of Working People in America
A history of working people in America, from colonial times to the present, with special emphasis on industrialization, its economic and social impact on workers, and the ways in which working people respond to those changes.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Faler

Hist 332 Medieval Law
The principles underlying the evolution of law in Western Europe. Emphasis on England during the middle ages. Some of the legal concepts and procedures necessary in understanding medieval history and common law. Recommended for pre-law students.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Percy

Hist 333 The Medieval Mind
Through literary, philosophical, and religious masterpieces from the period, this interdisciplinary seminar probes the culture which created the modern West and considers the differences between its modes of thought and moral values and ours.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Percy

Hist 334 The Social and Economic Transformation of Europe
Europe's industrial revolution. Fundamental social changes associated with industrialization (In demographic regime, family structure, social stratification, etc.). Consideration of movements opposed to modernization.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Staff

Hist 335 Science and Technology in the Industrial Revolution In Britain
The social and economic effects of science and technology during the industrial revolution, and some of the consequences for education. The implications for some of Britain's leading industries of the changeover to steampower and to new chemical processes. Special case study of the important engineering firm, Boulton and Watt. No special knowledge of science required.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Robinson

Hist 336 Artisans and Peasants in Early Modern Europe
An analysis of the consciousness, the family and community organization, and the political activity of peasants and artisans in 17th and 18th century Europe.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Hunt

Hist 338 The British Empire, 1700 to 1900
An historical study of selected topics and problems in the economy, polity, and ideology of the eighteenth and nineteenth century British Empire and a review of the British role in the world economy.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Prouty

Hist 342 Britain in the Twentieth Century
A survey of political and social change in Britain since 1900.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Staff

Hist 343 The French Revolution
History of the efforts of the French people to overthrow the social system of the old regime and to replace it with one more suited to their needs.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Hunt

Hist 344 Literature and History – Russia 1825-1917
This course will explore the interaction between Russian literature and Russian history between 1825-1917.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Ms. Kingston-Mann

Hist 345 Contemporary Currents of Protest in the Soviet Union
An examination of the rise of criticism of official policies since the death of Stalin in 1953.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Shatz

Hist 346 History of the Russian Intelligentsia, Eighteenth Century to the Present
Rise and development of political dissidents in Russia, from the origins of the intelligentsia in the eighteenth century to Stalin's purges of the 1930's.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Shatz

Hist 347 The Russian Revolution, 1917
The origins and Development of the Russian Revolution, with special emphasis on the questions of war, property, and constitutional freedom that divided pre-revolutionary opponents of the Tsarist regime in 1917.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Ms. Kingston-Mann

Hist 350 History of European Liberalism
A study of the evolution of the liberal tradition in European thought from the 17th to the 20th century. Emphasis is placed upon varieties of liberalism. The distinctiveness of national traditions, and the relationship of liberalism to rival ideologies such as democracy, socialism, and conservatism.
Prerequisite: Introductory European History.
3 Lect Hrs 3 Credits
Mr. McCarthy

Hist 352 The Habsburg Monarchy, 1699 to 1918
Consolidation of the multi-national Habsburg Empire and its peculiar social, economic, and political institutions. Decline of the Austrian idea under the impact of 19th century tensions. National awakening of Czechs, Germans, Poles, Magyars, South Slavs, and the historical, social and psychological roots of nationalism. Attempts at reform and conciliation. Ultimate failure of the multi-national state. Cultural and intellectual achievements of the Monarchy's last two centuries.
Prerequisite: Junior standing.
3 Lect Hrs 3 Credits
Staff

Hist 354 Vienna, 1900
Vienna, capital of the Austro-Hungarian Empire at the turn of the century, a time of political disintegration, when it became the center of new pioneering, intellectual, scientific, and aesthetic activities.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Grossmann

Hist 355 Hitler, A Man and His Times
A focus on the life and career of Adolf Hitler to elucidate an important period in German and European History.
Prerequisite: Permission of instructor.
3 Lect Hrs 3 Credits
Mr. Bookbinder

Hist 358 Marx and Freud, Studies in Modern Intellectual History
A comparison of the approaches of Marx and Freud to political and social problems. Some attention will be given to thinkers e.g., Herbert Marcuse, who have sought to combine the insights of Marx and Freud.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. McCarthy

Hist 359 History of European Socialism
A survey of socialist ideas and movements from the era of the French Revolution to the present. Emphasis will be placed on the reading of major texts in the socialist tradition.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. McCarthy

Hist 360 A Social History of Working Class Women
General social history of women and the institutions that governed their lives – the family, sexual and reproductive practice, child raising practices. The social organization of work and control over the means of production.
Prerequisite: Intro history, a women's studies course and junior standing.
3 Lect Hrs 3 Credits
Ms. Gordon

Hist 362 History of Feminism
The political and cultural rebellion of women in England and America from the late 18th century to the present, including the contemporary Women's Liberation Movements, Women's Rights Movements, and women's participation in the Labor Movement, the Socialist and Communist Movements, Abolitionist Struggle and the Civil Rights Movement.
Prerequisite: History 361.
3 Lect Hrs 3 Credits
Ms. Gordon

Hist 363 Hitler and Stalin, Comparative Dictatorship
An historical comparison of Germany under Hitler and the Soviet under Stalin.
Prerequisite: Junior standing or deparmental approval.
3 Lect Hrs 3 Credits
Mr. Bookbinder

Hist 364 History of Feminist Thought
An upper level survey of Feminist Theory, European and American. It will concentrate primarily on the development of feminist thought between the late eighteenth century and the present, reading such Theorists as Wollstonecraft, Mill, Gilman, Marx, and contemporary Women's Liberation writers.
Prerequisite: Intro history, a women's studies course and junior standing.
3 Lect Hrs 3 Credits
Staff

Hist 365 Modernization, Nationalism and Revolution in the Middle East I
Impact of the Western World on the Middle East and the Middle Eastern response, especially the latter, from 1798 to 1914. Comparative analysis of the different societies of the area and their political, economic and social structures.
Prerequisite: An introductory history course (100-199), preferably 111 or 112.
3 Lect Hrs 3 Credits
Mr. Ahmad

Hist 366 Modernization, Nationalism and Revolution in the Middle East II
Impact of the Western World on the Middle East and the Middle Eastern response, especially the latter, from 1914 to the present. Comparative analysis of the different societies of the area and their political, economic and social structures.
Prerequisite: An introductory history course (100-199), preferably 111 or 112.
3 Lect Hrs 3 Credits
Mr. Ahmad

Hist 367 Chinese History to 1644
A survey of traditional Chinese civilization to the establishment of the last Chinese Dynastic Empire in 1644. Major topics include the beginning of Chinese civilization, major schools of thought in Ancient China – Confucianism, Taoism, Leagalism – the creation of the Chinese Empire. The Confucianization of Chinese institutions, social structure and mobility, the role of law, the evolution of Chinese culture, challenges to the Chinese system, and Chinese views of world order.
Prerequisite: Junior standing.
3 Lect Hrs 3 Credits
Ms. Conner

Hist 368 Chinese History Since 1644
A survey of modern Chinese history from the founding of the last Dynastic Empire in 1644 to the present. Major topics include the rise and decline of the Manchu Dynasty, the coming of Europeans, domestic rebellion, China's response to the West, foreign encroachment, the upsurge of nationalism, reform and revolution, the Chinese Renaissance, the Nationalist Government, Chinese Communism, Japan's agression, the Civil War, and the People's Republic of China.
Prerequisite: Junior standing.
3 Lect Hrs 3 Credits
Ms. Conner

Hist 371 The Germanies: 1945-1975
This course traces the emergence of two distinct German states from a common heritage.
3 Lect Hrs
Staff 3 Credits

Hist 373 Progressivisim and the Emergences of Modern America 1890-1920
An analysis of the period in which the United States emerged as a leading industrial and expansionist power. The course will cover the rationalization of industry, the genesis of reform and changes in traditional values and beliefs.
Prerequisite: History 265-266.
3 Lect Hrs 3 Credits
Mr. Stern

Hist 376 History of Africa from 1870 to the Present
The European conquest and partition of Africa, the establishment of European rule and African response to colonialism, forms of native administrative policies, socio-economic changes in African societies, growth of African nationalism, the emergence of independent African states and problems of decolonization.
Prerequisite: Junior standing or departmental approval.
3 Lect Hrs 3 Credits
Mr. Amiji

Hist 398 Topics in the History of Boston
An intensive study of selected topics in the history of Boston.
Prerequisite: History 323 or permission of instructor.
3 Lect Hrs 3 Credits
Mr. Prouty

Hist 478 Special Problems I
Guided reading and research, may be used in departmental honors program.
Prerequisite: Senior standing, history major.
Hrs by Arrangement 3 Credits
Staff

Hist 479 Special Problems II
Guided reading and research, may be used in departmental honors program.
Prerequisite: Senior standing, history major.
Hrs by Arrangement 3 Credits
Staff

Hist 700 Graduate Colloquium
Hrs by Arrangement 6 Credits
Staff

Hist 701 Master's Thesis
Hrs by Arrangement 6 Credits
Staff

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Associate Professors Bernice Auslander, James Byrnes, Carl Cohen, Ernest S. Elyash, Guy T. Hogan, Joan Lukas, John A. Lutts, Some Nath Mukherjee, Elizabeth J. O'Neil, Stephen K. Parrott.

Assistant Professors Daniel Comewetz, So-Fei Wei Fang, M. Colin Godfrey, Victor Miller, Helen Skala-Kowalski, Michael Thomlinson, Sherwood Washburn, Dennis Wortman.

ACADEMIC REQUIREMENTS

At least 18 semester credit hours in undergraduate mathematics beyond the content of Differential and Integral Calculus are normally required of each candidate entering the Master's program. A one-year course in Advanced Calculus would be desirable.

To earn a Master's degree in Mathematics, a student must:

1. Pass 10 courses, at least 6 of which must be numbered 700 or above, and which must include the courses 711 (Modern Algebra 1), 721 (Complex Variables 1), 723 (Real Variables 1), and 725 (General Topology) or their equivalent. No more than 3 of the 10 courses counted toward the Master's degree may be taken outside the Department, and they must be graduate courses and 2 must be math-related.
2. Pass the Master's Written Qualifying Exam. This exam consists of two parts each of which lasts two hours, one part covering algebra and topology, and the other, analysis. Knowledge of the material through the level of 711, 721, 723, and 725 should be sufficient to enable the student to pass the exam.

While the student ordinarily works out his program in consultation with his advisor, the ultimate responsibility rests with the student. A Master's candidate who has not completed the requirements for the Master's degree at the end of his second year will not be permitted to enroll further in the Department.

COURSES OFFERED

Math 711, 712 Introduction to Modern Algebra
Math 721, 722 Theory of Functions of a Complex Variable
Math 723, 724 Theory of Functions of a Real Variable
Math 725, 726 Topology
Math 727, 728 Stochastic Processes
Math 789, 790 Special Topics

Math 711 Introduction to Modern Algebra I
Groups, rings, algebras, fields, modules. Linear transformations, matrices, tensor products. Homological algebra.
Prerequisite: Math 351 or equivalent.
3 Lect Hrs — 3 Credits
Staff

Math 712 Introduction to Modern Algebra II
Groups, rings, algebras, fields, modules. Linear transformation, matrices, tensor products. Homological algebra.
3 Lect Hrs — 3 Credits
Staff

Math 721 Theory of Functions of a Complex Variable I
Linear transformations of a complex variable. Power series and elementary functions. Holomorphic functions and Cauchy's Theorem. Theory of Residues, isolated singularities. Conformal mappings. Entire and meromorphic functions and their representations by means of products and partial fractions. Elliptic functions. Analytic continuation and Riemann surfaces. Algebraic functions.
Prerequisite: Math 351 or equivalent.
3 Lect Hrs — 3 Credits
Staff

Math 722 Theory of Functions of a Complex Variable II
Linear transformations of a complex variable. Power series and elementary functions. Holomorphic functions and Cauchy's Theorem. Theory of Residues, isolated singularities. Conformal mappings. Entire and meromorphic functions and their representations by means of products and partial fractions. Elliptic functions. Analytic continuation and Riemann surfaces. Algebraic functions.
Prerequisite: Math 351 or equivalent.
3 Lect Hrs — 3 Credits
Staff

Math 723 Theory of Functions of a Real Variable I
The real number system, Lebesgue Measure and the Lebesgue Integral, differentiation, the classical Banach Spaces, general measure, and the Integration Theory.
Prerequisite: Math 351 or equivalent.
3 Lect Hrs — 3 Credits
Staff

Math 724 Theory of Functions of a Real Variable II
The real number system. Lebesgue Measure and the Lebesgue Integral, differentiation, the classical Banach Spaces, general measure, and the Integration Theory.
Prerequisite: Math 351 or equivalent.
3 Lect Hrs — 3 Credits
Staff

Math 725 Topology I
Topological spaces, classification, separation properties, cartesian products, mappings and continuity, connectedness, general convergence, compactness, function spaces. Introduction to Homotopy Theory. Algebraic topology.
3 Lect Hrs 3 Credits
Staff

Math 726 Topology II
Topological spaces, classification, separation properties, cartesian products, mappings and continuity, connectedness, general convergence, compactness, function spaces. Introduction to Homotopy Theory. Algebraic topology.
3 Lect Hrs 3 Credits
Staff

Math 727 Stochastic Processes I
Probability spaces, measures, random variables. Various modes of convergence, laws of large numbers and of the iterated logarithm. Central limit theorem, conditioning, martingales.
3 Lect Hrs 3 Credits
Staff

Math 728 Stochastic Processes II
Processes with independent increments. Markov chains, stationary processes, continuous parameter Markov chains, diffusion processes, sample paths, separability, semigroups, boundaries.
3 Lect Hrs 3 Credits
Staff

Math 729 Stochastic Processes I
Probability spaces, measures, random variables. Various modes of convergence, laws of large numbers and of the iterated logarithm. Central limit theorem, conditioning, martingales.
3 Lect Hrs 3 Credits
Staff

–Not Offered Every Year–

Math 730 Stochastic Process II
Processes with independent increments. Markov chains, stationary processes, continuous parameter Markov chains, diffusion processes, sample paths, separability, semigroups, boundaries.
Prerequisite: Math 729 or permission of instructor.
3 Lect Hrs 3 Credits
Staff

–Not Offered Every Year–

Math 731 Partial Differential Equations I
Hamilton-Jacobi Theory for equations of first order, distributions, fourier integrals of distributions, Sobolev spaces of distributions.
3 Lect Hrs 3 Credits
Staff

–Not Offered Every Year–

Math 732 Partial Differential Equations II
Elliptic equations, Garding's inequality, smoothness of solutions, solutions of the Dirichlet problem, hyperbolic equations, the Cauchy problem.
Prerequisite: Math 731 of permission of instructor.
3 Lect Hrs 3 Credits
Staff

–Not Offered Every Year–

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